Parental anxiety and comprehension before cardiac intervention in a population of children with congenital heart disease (CHD): contributing factors and consequences.

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Introduction: The medical information (diagnosis and treatment) around congenital heart disease can induce major stress to the parents. Visual analog scales have been validated to assess anxiety in the adult population. The aim of this study was to analyze parental anxiety using a Visual analog scales and to explore the influencing factors, in particular the level of understanding of the disease and its support.

Methods: Prospective transversal study lead from January 2017 to May 2017 in the pediatric cardiology and intensive care unit of -La Timone Enfants’ University Hospital (Marseille, France). All available parents (mother and/or father) of children admitted for surgical or transcatheter cardiac intervention were offered to participate. The parents were asked to complete 2 Visual analog scales in order to assess their level of anxiety and comprehension, before intervention and after complete information given by the cardiologist, the surgeon and the anesthetists.

Results: We included 73 patients, mean age 3 years, median 11 months (range 7 days-13 years), 42 requiring surgery and 31 transcatheter intervention. The mean score of maternal anxiety was significantly higher than the paternal anxiety (8.2 vs 6.3, p<0.0001). The factors that influenced the maternal anxiety were: the paternal anxiety (p=0.015), children's comorbidity (p=0.013), the distance home-surgical center (p=0.036) and the surgical risk scale (RACHS) (p=0.025). In multivariate analysis, maternal anxiety was still influenced by the paternal anxiety (OR= 4.9 95%CI 1.05-19.42) and the RACHS (OR= 11.4 95% CI 1.19-116.2). No relation was found between the mean score of comprehension and anxiety. In the neonatal group, there was no difference in parental anxiety between prenatal and postnatal diagnosis.

Conclusion: This study highlights several factors that influence the parental anxiety. Identifying the parents at risk of high stress can be useful to set up psychological support during hospitalization.